

the bunkers to tip the buckets at any desired point to fill each coal bunker.

As soon as the buckets are empty, and the end of the line of bunkers is reached, the conveyor descends vertically inside the end of the boiler house to the basement under the boilers, where it passes through a tunnel K under the coal store to the coal filler, thus completing one cycle.

The chain is driven by a special driving gear operated by electric motor or steam-engine at L.

Correct tension on the chain is maintained by the adjustable guide wheels F¹ in the coal filler pit.

In order to enable the store of coal to be used in emergency, arrangements are made so that coal may be drawn therefrom by way of the coal

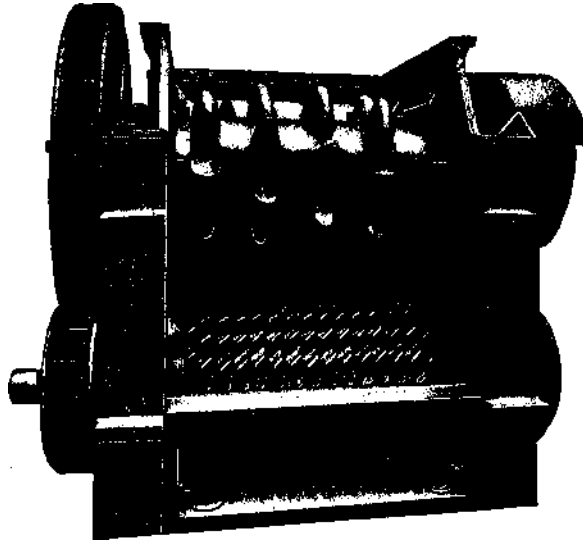


Fig. 6.—View with Part of Casing removed, showing Breaker Claws

shoots M, located under the store in the tunnel K, and, in order to efficiently fill the buckets, a portable rotary coal filler, generally similar in design to the main coal filler.D in the filler pit, is provided in the tunnel. This filler is mounted on rails, so that it can readily be moved under any of the coal shoots M.

A typical design of first class gravity bucket conveyor is made by Messrs. Babcock & Wilcox, who make this apparatus in standard sizes capable of handling 20, 40, 50, 80, or 100 tons and upwards of coal per hour.

The general design and arrangement of the conveyor is shown in fig. 4, which indicates the buckets, chain, and dumpers for tipping the buckets when required. The buckets are of mild steel stamped out of one sheet,

with tipping cams and trunnions riveted on.

An enlarged view of the rotary filler, indicated at D in fig. 3, is given in fig. 5. It will be noted that the device consists of a hollow casting, into the centre of which the coal is fed from the crusher and screen. The periphery